

IN THE CLAIMS

1 – 23. (Cancelled).

24. (New) A method of carrying out dissolved gas flotation in a liquid comprising:
- introducing a gas into a liquid containing suspended particles to form a mixture;
 - inducing cavitation within the mixture to form bubbles within the liquid;
 - distributing the bubbles throughout the mixture, the bubbles attaching to the suspended particles; and
 - allowing the bubbles and attached particles to rise to the surface of the mixture.
25. (New) The method of claim 24 and wherein allowing the bubbles and attached particles to rise to the surface includes directing the mixture to a separation tank.
26. (New) The method of claim 25, further comprising holding the mixture in the separation tank to allow the particles and bubbles to rise to the surface of the mixture.
27. (New) The method of claim 26, further comprising removing the particles from the surface of the mixture.
28. (New) The method of claim 24, wherein the gas is air.
29. (New) The method of claim 24, wherein the particles are pulp fibers.

30. (New) The method of claim 24, wherein inducing cavitation in the mixture comprises introducing the mixture into a chamber having a rotating disc formed with a plurality of irregularities, the irregularities on the rotating disc inducing cavitation in the mixture.

31. (New) The method of claim 30, wherein the irregularities comprise bores formed in the periphery of the disc.

32. (New) A method of separating suspended particles from a liquid comprising:
introducing air into the liquid to form a mixture;
inducing cavitation within the mixture, wherein air bubbles are uniformly distributed throughout the liquid and the particles attach to the air bubbles; and,
holding the mixture within a tank to allow the particles to rise to the surface of the mixture.

33. (New) The method of claim 32, wherein the particles are pulp fibers.

34. (New) The method of claim 32, wherein inducing cavitation in the mixture comprises introducing the mixture into a chamber having a rotating disc formed with a plurality of irregularities, the irregularities on the rotating disc inducing cavitation in the mixture.

35. (New) The method of claim 34, wherein the irregularities comprise bores formed in the periphery of the disc.

36. (New) The method of claim 32, further comprising removing the particles from the mixture.